



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/537,099

12/29/2005

Antonie Selis van de Bovenkamp

2409-0154PUS1

8519

2292 7590 08/20/2009
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

BANH, DAVID H

ART UNIT

PAPER NUMBER

2854

NOTIFICATION DATE

DELIVERY MODE

08/20/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/537,099	Applicant(s) VAN DE BOVENKAMP, ANTONIE SELIS	
	Examiner DAVID BANH	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6,7,9-15 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,7,9-15 and 17-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/2/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 4 is objected to because of the following informalities: Claim 4 recites "a stop surface that is provided", however such a stop surface has been previously disclosed in parent claim 2. Additionally, the recitation "a stop is provided" recites a stop that was also previously disclosed in claim 2. Appropriate correction is required.

3. Claim 12 objected to because of the following informalities: The recitation stop surface lacks antecedent basis. Appropriate correction is required.

Allowable Subject Matter

4. The indicated allowability of claims 14, 15 and 17-22 is withdrawn in view of the newly discovered reference(s) to Tsukamoto, Hess, Ishii, Korem and the Washchynsky et al. reference cited in the IDS and based on the amendments to parent claims upon which claims 14, 15 and 17-22 depend. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 6, 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956) in view of Hess (US Patent 6,272,986).

For claims 1 and 23: Tsukamoto teaches a printing machine containing a printing module **10** comprising a main frame (all the print elements and frames of printing module **10** are connected, the module **10** can be considered the main frame), an impression roller **17** being rotatably bearing mounted (see Fig. 1, the roller **17** is rotatable, as seen by the arrow indicating rotation and a shaft **17A** can be considered a bearing) in the main frame **10**, a plate cylinder assembly having a plate cylinder **16** that is provided with a print image (the surface of the printing plate is a print image when inked) that, in use, with the interposition of a substrate to be printed **P** abuts the impression roller **17** (see Fig. 1), an ink reservoir **11**, a doctor roller **13** being configured to take up ink from the ink reservoir **11**, an anilox roller **15** being arranged between the doctor roller **13** and the plate cylinder **16** and configured to remove a desired amount of ink from the doctor roller and to transfer ink to the plate cylinder **16** (see Fig. 1, for the arrangement), a first subframe **F** in which the plate cylinder **16** is rotatably bearing-mounted (see Fig. 1, the rotational direction is shown and again the shaft **16A** can be considered the bearing), and setting a distance of the plate cylinder **16** relative to the impression cylinder **17** (see Fig. 1, the position of the frame **F** does and the cylinder **16** on the frame **F** does set a distance between cylinder **16** and impression cylinder **17**) and a second subframe **F1**, in which the anilox roller **15** and doctor roller **13** are rotatably bearing mounted (here again on their shafts) and that is movably connected with the first subframe **F1** for the positioning and setting a distance of anilox roller **15**

Art Unit: 2854

relative to plate cylinder **16** (the position of the subframe **F1** determines the distance necessarily), wherein a positioning change of the anilox roller **15** relative to the plate cylinder **16** does not affect the positioning of the plate cylinder **16** relative to the impression roller **17** (the frame **F1** facilitates easy removal of the anilox roller **15** from the assembly, but would not change the positioning of the plate cylinder **16** relative to the impression roller **17**, paragraph 31). Tsukamoto does not teach that the plate cylinder can change positioning relative to the impression roller without affecting the position of the anilox roller relative to the plate cylinder and that the first frame is movable relative to the main frame. However, Hess teaches a movable frame carrying anilox and plate rollers that is movable relative to an impression cylinder (column 4, lines 62-67 and column 5, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of Hess to make the frame **F** of Tsukamoto movable allow it to lift the anilox and plate cylinders away from the impression cylinder to allow for changing of a printing plate in an idle state.

For claim 6: The combination of Tsukamoto and Hess teaches all of the limitations of claim 1 and Hess further teaches that the movable connection between the first subframe **80** and the main frame **62** is a connection pivotable about a first pivot **P** (see Hess, column 9, lines 30-40).

For claim 9: The combination of Tsukamoto and Hess teaches all of the limitations of claim 1 and Hess further teaches a piston cylinder assembly **202, 208** which has a first end connected with the main frame **62** and which has a second end connected with a first subframe **80** such that the first piston cylinder aids in the pressure

Art Unit: 2854

the plate cylinder exerts on the impression cylinder (column 12, lines 45-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the piston cylinder assembly of Hess in the combination of Tsukamoto and Hess for the purpose of moving the print cylinder relative to the impression cylinder to allow for plate changing.

7. Claims 2, 4, 7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956) and Hess (US Patent 5,678,485) as applied to claim 1 above, and further in view of Stuchlik et al. (US Patent 6,006,665).

For claim 2: The combination of Tsukamoto and Hess teaches all of the limitations of claim 2 except for a stop surface that is provided on the plate cylinder assembly and a stop that is provided on the second subframe and abuts against the stop surface, the position being settable relative to the second subframe. However, Stucklik et al. teaches a stop surface provided on the plate cylinder (see Fig. 1, the trapezoidal surface on the top of plate cylinder **18**), a stop **52** provided on the second subframe **30** and abuts the stop surface of the plate cylinder in use (column 2, lines 37-45, the stop abuts the stop surface to maintain the positioning of the anilox cylinder with the plate cylinder, the anilox cylinder being position with end plate **30**). Finally, the position of the stop is set relative to the frame as it is given a specific location as seen in Fig. 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a stop surface on the plate cylinder and a stop on the

Art Unit: 2854

subframe to maintain the relative position of the anilox cylinder and the plate cylinder to prevent an excess of ink from being applied to the plate cylinder.

For claim 4: The combination of Tsukamoto, Hess and Stucklik et al. teaches all of the limitations of claim 2 and further Stucklik et al. teaches a stop surface provided on the plate cylinder assembly (as taught for the claim above), a portion of the stop surface being settable relative to the plate cylinder (see Fig. 1, the stop surface is set in position relative to the plate cylinder), and a stop that is provided on the second subframe and abuts the surface of the plate cylinder (see Fig. 1 and column 2, lines 37-45 as above).

For claim 7: The combination of Tsukamoto and Hess teaches all of the limitations of claim 7 except that there is a movable connection between the second subframe and the first subframe about a second pivot. However, Stucklik et al. teaches a first subframe **12** holding the printing cylinder **18** being pivotable relative to the second subframe **30** holding the anilox cylinder **16**. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the anilox cylinder and printing cylinder and associated frames pivotable and movable with respect to one another for the purpose of controlling the gap between the two to control the amount of ink transferred to the printing cylinder by the anilox cylinder.

For claim 10: The combination of Tsukamoto and Hess teaches all of the limitations of claim 10 except that there is a piston-cylinder assembly which has a first end connected with the main frame and which has a second end connected with or abutting against the second frame. However, Stucklik et al. teaches a piston cylinder assembly **50** that has a first end connected to the main frame, via **12** (see Fig. 1, the

Art Unit: 2854

first end is connected to frame **12**, which functions as the main frame and the first subframe in this invention, additionally, note that in combination of Tsukamoto and Hess, the first subframe and main frame are connected, so any connected to the first subframe is a connection to the main frame) and a second end connected to a second subframe **30** (being the frame holding the anilox cylinder), the piston cylinder assembly adjusting the second subframe relative to the main frame (column 2, lines 40-42, and column 4, lines 13-16 and 26-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a piston cylinder linkage to adjust the relative positions of the second frame and the main frame to control the displacement of the print cylinder and anilox cylinder relative to one another to control the amount of ink transferred from anilox to print cylinder to control the print quality.

For claim 11: The combination of Tsukamoto and Hess teaches all of the limitations of claim 11 except that there is a piston-cylinder assembly which has a first end connected with the main frame and which has a second end connected with or abutting against the second frame. However, Stucklik et al. teaches a piston cylinder assembly **50** that has a first end connected to the first subframe **12** (see Fig. 1, the first end is connected to frame **12**) and a second end connected to a second subframe **30** (being the frame holding the anilox cylinder), the piston cylinder assembly adjusting the second subframe relative to the main frame (column 2, lines 40-42, and column 4, lines 13-16 and 26-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a piston cylinder linkage to adjust the relative positions of the second frame and the main frame to control the displacement of the

Art Unit: 2854

print cylinder and anilox cylinder relative to one another to control the amount of ink transferred from anilox to print cylinder to control the print quality.

8. Claims 12, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956) and Hess (US Patent 5,678,485) as applied to claim 1 above, and further in view of Ishii (US Patent 4,879,950).

For claim 12: The combination of Tsukamoto and Hess teaches all of the limitations of claim 12 except a stop ring provided on opposite sides of the plate cylinder fixed connected to a stationary shaft and a supporting ring connected to the stationary shaft on opposite sides of the cylinder. However, Ishii teaches a stop ring **112** and corresponding a second stop ring **113** provided on opposite sides of a printing cylinder **101** on a shaft **102** and supporting rings **103, 104** being bearings connected to the shaft **102** on opposite sides of said cylinder **101** (see Fig. 9, and correspondingly column 6, lines 30-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a stationary shaft **102** with stop rings **112, 113** and supporting rings **102, 103** connected to the shaft for the purpose of mounting and securing the cylinder onto the shaft. The surface of a stop ring is a stop surface.

For claim 13: The combination of Tsukamoto, Hess and Ishii teaches the printing module of claim 12 wherein Ishii further teaches that the first subframe **105, 106** further comprises two receiving units **109, 110** disposed on opposite sides of the plate cylinder **101** configured to receiving the support rings **103, 104** when the plate cylinder is in an operative position (see Figs. 9 and 10, the frames comprise bearings **109, 110** that indirectly receive the support rings).

For claim 14: The combination of Tsukamoto, Hess and Ishii teaches the printing module of claim 13 wherein Ishii further shows a support surface provided with a particular curve on the receiving units **109, 110** (the units have a surface with some type of curve). Since the distance between the anilox roller and impression roller and plate cylinder and all adjustable, the curve is such that the distances can be made equal.

9. Claims 15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956), Hess (US Patent 5,678,485), and Ishii (US Patent 4,879,950) as applied to claim 13 above, and further in view of Washchynsky et al. (US Patent 4,878,427).

For claim 15: The combination of Tsukamoto, Hess and Ishii teaches the printing module of claim 13. It does not teach fixation means configured to fixate a plate cylinder assembly in the receiving units, the fixation means located under the plate cylinder assembly. However, Washchynsky et al. teaches fixation means (see Fig. 5) for a cylinder about the cylinder axis **102** (see column 6, lines 35-40), the fixation means having a rod **128** at an upwardly directed end provided with a hook **94** (see Fig. 5), the hook engaged to that stationary shaft of the cylinder **102** while a pull force is exerted on the rod **128** to press cylinder into a receiving unit **112**. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the plate assembly of the combination of Tsukamoto, Hess and Ishii with a pair of hook and rod mechanisms for moving the cylinder on both ends of the cylinder shaft for the purpose of moving the cylinder in and out of an operating position.

Art Unit: 2854

For claim 17: The combination of Tsukamoto, Hess, Ishii and Washchynsky et al. teaches the printing module of claim 15 and Washchynsky et al. further comprising two piston cylinder assemblies **122, 124, 126** each connected to one of the two rods at an end of the rod remote from the hook, each assembly being configured to adjust the position of the associated rod and to exert a pulling force (see Fig. 5 and column 7, lines 1-5).

For claim 18: The combination of Tsukamoto, Hess, Ishii and Washchynsky et al. teaches the printing module of claim 15 and Washchynsky et al. further teaches that the fixation means further comprises bearing surfaces configured to support the assembly when the fixation means are in a release position in which the plate assembly is lifted out of the receiving units such that the plate cylinder assembly can be taken out of the printing module (hook **92** being a bearing, see column 6, lines 35-45, has a surface on which the cylinder and cylinder shaft rest).

For claim 19: The combination of Tsukamoto, Hess, Ishii and Washchynsky et al. teaches the printing module of claim 15 and Washchynsky et al. teaches that each rod is provided with a bearing surface (see Fig. 5, hook **92** is a bearing and has a surface, column 3, lines 35-45), and is configured such that upon upward movement of the rod, the bearing surface automatically enters into engagement with the shaft and lifts the plate cylinder (if the rod is moved, the hook will contact the plate cylinder shaft and is capable of moving the plate cylinder assembly).

10. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956), Hess (US Patent 5,678,485), Ishii (US Patent

Art Unit: 2854

4,879,950) and Washchynsky et al. (US Patent 4,878,427). as applied to claim 15 above, and further in view of Cunnington (US Patent 4,373,444).

For claims 20-22: The combination of Tsukamoto, Hess, Ishii and Washchynsky et al. teaches the printing module of claim 15. The combination does not teach receiving means positioned substantially above the receiving units being configured to mount additional processing means. However, Korem teaches a web inverting unit **30**, which comprises cylinders which must be held in a receiving means with guides (see Fig. 2A, any cylinder must be held by some structure, which would be a receiving means, a receiving structure which holds a cylinder is a guide, and a plurality of cylinders are found in inverting unit **30**). It would have been obvious to one of ordinary skill in the art to position a web invert above the printing module of Tsukamoto, Hess, Ishii and Washchynsky et al. for the purpose of correctly positioning a web to be printed in a printing unit.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

Art Unit: 2854

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID BANH whose telephone number is (571)270-3851. The examiner can normally be reached on M-Th 9:30AM-8PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DHB

/Judy Nguyen/
Supervisory Patent Examiner, Art Unit 2854